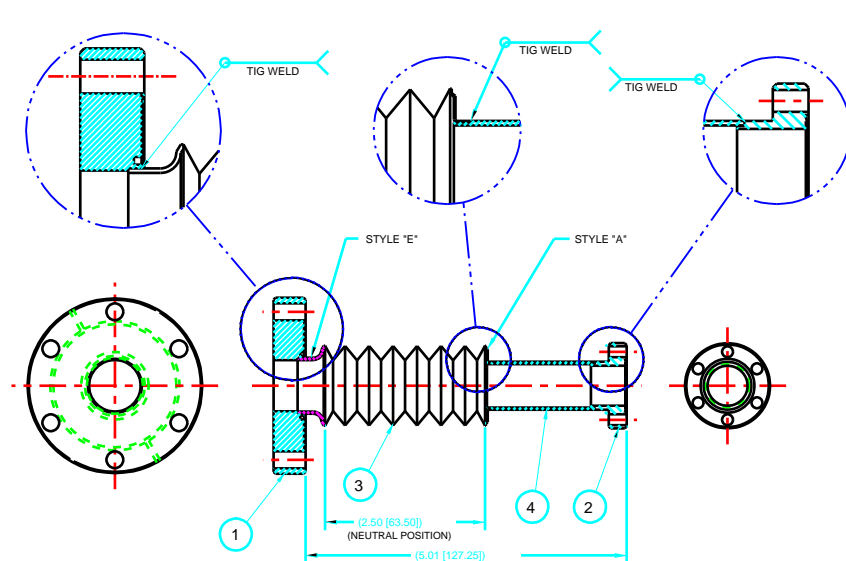


8 7 6 5 4 3 2 1



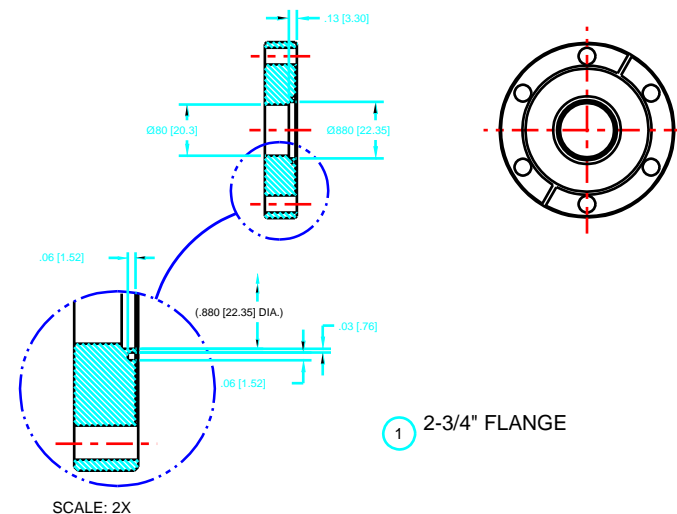
ASSEMBLY

NOTES:

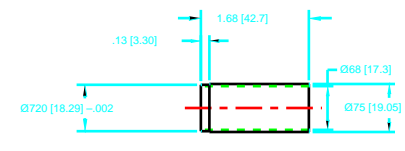
1. THIS IS AN ULTRA-HIGH VACUUM COMPONENT (UHV).
2. WHEN MACHINING VACUUM PARTS, USE OF SILICONE AND SULPHUR-BASED CUTTING FLUIDS IS PROHIBITED. USE ONE OF THE FOLLOWING:
A) CIMCOOL 5 STAR 49
B) TRIM SOL.
3. THE COMPONENT NEEDS TO GO THROUGH A MULTIPLE STEP CLEANING PROCESS INVOLVING DEGREASING, WASHING, AND DRY NITROGEN BLOWDOWN BEFORE WELDING.
4. THE COMPONENT SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2 x 10⁻⁸ STANDARD/CC/SEC PER LEAK METER DIVISION, SUCH AS:
ALCATEL ASM-110TCL
VARIAN NCR 925 OR 936
VEECO MS-9, MS-90 OR MS-18
DUPONT CEC 24-120B
CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.
FINAL TESTING WILL CONSIST OF SURROUNDING THE ASSEMBLY (BAGGING) WITH HELIUM. THE ASSEMBLY WILL BE REJECTED IF A 2% DEFLECTION IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.
5. WELD SHALL BE GAS TUNGSTEN ARC (GTAW) OR TUNGSTEN INERT GAS (TIG) ON VACUUM SIDE OF JOINTS.
6. KEEP THE PART CLEAN, AND WRAP FOR UHV PACKING WITH ALUMINUM FOIL.
7. BELLOW SHALL BE DESIGNED FOR 14.7 PSI INTERNAL PRESSURE WITH TOTAL STROKE OF 2.36 INCHES (VACUUM ON THE EXTERNAL SURFACE).
8. ALL VACUUM SURFACE FINISH SHALL BE OR BETTER $\sqrt{63}$.
9. DIMENSIONS IN [] ARE MILLIMETERS AND ARE FOR REFERENCE ONLY.

SOURCE

1. STANDARD BELLOWS CO.
375 ELLA T. GRASSO TURNPIKE
WINDSOR LOCKS, CT 06096
PH: 1-203-623-2307
FAX: 1-203-623-2307
2. MDC VACUUM PRODUCTS
23842 CABOT BLVD.
HAYWARD, CA 94545-1651
PH: 1-800-443-8017
FAX: 1-510-887-0626



1 2-3/4" FLANGE



4 TUBE

| ITEM | QTY | QINGPART NUMBER | NOMENCLATURE OR DESCRIPTION | MATERIAL / SPEC | QTY |
|------|-----|-----------------|-----------------------------------|-----------------|-----|
| 4 | 1 | | Ø75 O.D. x .035 WALL TUBING | SST | 1 |
| 3 | 1 | | BELLOWS WELDMENT | 347 SST | 1 |
| 2 | 1 | | Ø1-1/3" NOM. NON-ROTATABLE FLANGE | 304 SST | 1 |
| 1 | 1 | | Ø2-3/4" NOM. NON-ROTATABLE FLANGE | 304 SST | 1 |

| LOG NUMBER | | DATE | | DATE | | DATE | |
|----------------------|--|---------|--|---------|--|---------|--|
| A2415800 | | 5/5/96 | | 6/24/96 | | 6/26/96 | |
| DRAWN BY | | DATE | | DATE | | DATE | |
| R. KRAKORA | | 5/5/96 | | 6/24/96 | | 6/26/96 | |
| CHECKED BY | | DATE | | DATE | | DATE | |
| J. CHANG | | 6/18/96 | | 6/26/96 | | 6/26/96 | |
| DESIGNER | | DATE | | DATE | | DATE | |
| KRAKORA/CHANG | | 5/5/96 | | 6/26/96 | | 6/26/96 | |
| RESPONSIBLE ENGINEER | | DATE | | DATE | | DATE | |
| J. CHANG | | 6/18/96 | | 6/26/96 | | 6/26/96 | |
| MATERIAL | | DATE | | DATE | | DATE | |
| SEE B.O.M. | | 6/18/96 | | 6/26/96 | | 6/26/96 | |

| REVISIONS | | BY | | CHKD | | DATE | |
|--------------------|--|----|--|------|--|------|--|
| EVM | | | | | | | |
| CHANGE DESCRIPTION | | | | | | | |
| REVISIONS | | | | | | | |

| SCALE | | SHEET | | D | | P4105091203-370000-00 | |
|-------|--|--------|--|---|--|-----------------------|--|
| 1:1 | | 1 of 1 | | | | | |

8 7 6 5 4 3 2 1